



### 311th HUMAN SYSTEMS WING HUMAN SYSTEMS PROGRAM OFFICE



BROOKS AIR FORCE BASE SAN ANTONIO, TEXAS



Supporting the most important system the Air Force will ever field . . Human System





Col Albert Burnett Program Director (Since Mar 02) 311 HSW/YA 7980 Lindbergh Landing Brooks City-Base, TX 78235-5119

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**DSN: 240-3475** 



### **OVERVIEW**



- Program Office Overview / Circle of Life
- Facilities
- Life Sciences Laboratory Missions
- Personnel Accounting Mission Process



### **SPO Mission**



Maximize the combat power and survivability of the warfighter through the acquisition and sustainment of life support, NBC, aeromedical equipment and medical information systems.



A Safer Force

& New

ments

Require-

Never **Forget** 

### Welcome to the Air Force





Multiplying **Combat Power** 



Closure: \* Archives



\*BDUs

\* Flight Suits

Warrior:

### \* Helmets

### \* Anti G-loc AIR FOR \* Laser Eye



**Protection:** 

\* Positive

**Pressure Breathing** 

\* Chem-Bio Protection

Combat Power:



#### **Analyses:**

- \* POW/MIA artifacts
- \* Materials Lab
- \* Ranch Hand

#### **Mishap Investigation:**

- \* Lessons Learned
- \* Safer Systems

### **Transporting/Tracking Patients**

Safe Transport

for Wounded

\* Reserve Air \* Medical Info **Systems** 



### PCLE OF LIF

#### **Aeromedical:**

- \* Hospitals
- \* Spinal Cord Transport
- \* Oxygen Generation



#### Life Support:

- \* Ejection Seats
- \* Parachutes
- \* Life Rafts
- \* Survival Radios

#### **CBRN Protection:**

- \* Detectors
- \* Suits & Masks
- \* Enclosures



Increasing the Envelope



Over 10,000 items

**Safety Through Sustainment** 

**Protecting** the Troops









## Human Systems Program Office Organization

Military 92
Civilian 172
Contractors 82
Total 346

311 HSW/YA
Col Al Burnett - Systems Program Director
Mr Vern Jauer - Deputy

Chief Engineer (Mr Strahan)

Business Office (Mr Hudgins)

Chemical, Biological, Radiological and Nuclear (CBRN) Defense Division (Lt Col Turack)

Aircrew Protection (AP) Division (Lt Col Coleman)

Aeromed & Info Systems Division (Col Berry)

Product Support Division (Lt Col Jackson)

Contamination Avoidance Branch (Mr Martinez)

Protection Branch (Mr Manchester)

Decontamination Branch (Maj(S) Wyms)

Battle Management Branch (Capt Riche)

AP Acquisition Branch (Mr Gough)

AP Sustainment Branch (Ms Merchant)

AP Liaison Branch (CMSgt King)

Life Sciences Equipment Lab (Mr Smith)

Materials Lab (Ms Gonzales)

Aeromedical IPT (Lt Col Shackelford)

TRAC2ES IPT (Maj Owen)

Medical C4I Branch (Capt Jones)

Aeromedical Test Branch (Maj Driessen)

Aeromedical Consult (Col Tong)

Contracting (Lt Col Kean)

Financial Management (Mr Zingler)

Logistics (Lt Col Jackson)

Program Management (Mr Ogershok)

Requirements (Maj Gracia)



### **Professions**



### Human Systems Program Office =

**Acquisition Manager** 

Aeromedical Nurse/

Technician

Aerospace Medicine/

**Physiologist** 

AF CBRN Subject Matter Expert

Disaster Preparedness

**CBRN Analyst** 

Aircrew Life Support

**Technician** 

**Avionic Systems Technician** 

Chemist

**Computer Systems Operator** 

**Contracting Officer** 

Cost Analyst/

**Financial Manager** 

**Engineer** 

**Developmental** 

**Systems** 

**Test** 

**Electrical** 

**Software** 

**Bio-Medical** 

Fashion Designer/Tailor

Flight Surgeon

Health Services Administrator

Health Services Manager

**Information Manager** 

**Logistics Planner** 

Maintenance Data

Systems Manager

**CBRN Medical Advisor** 

Non-Destructive Inspection

Supply Manager

Survival Equipment Specialist





## LIFE SCIENCES EQUIPMENT LABORATORY & LIFE SCIENCES ARTIFACT SECTION

### SUPPORT TO THE DOD PERSONNEL ACCOUNTABILITY MISSION



### LIFE SCIENCES EQUIPMENT LABORATORY MISSION





- •POW/MP PERSONNEL ACCOUNTABILITY
- •CURRENT DAY MISHAP ANALYSIS AND SUPPORT
- •FIELD INVESTIGATIVE TECHNIQUES TRAINING
- •TECHNICAL AND SCIENTIFIC SUPPORT TO SPO PROGRAMS



### **CURRENT DAY MISSION**





SUPPORTING THE WARFIGHTER IN A VARIETY OF ENVIRONMENTS, MISSIONS, ROLES



### POW/MP ACCOUNTABILITY MISSION SUPPORT







## CILHI AND JTF-FA PERSONNEL AT AIRCRAFT EXCAVATION SITE







## RECOVERED ARTIFACTS FORWARDED TO LSEL FOR FURTHER ID/ANALYSIS







# LSEL ANALYSIS FOCUSED ON VIETNAM ERA AIRCRAFT/AIRCREW LOSSES FROM ALL SERVICES







## WORLD WAR I, WORLD WAR II, KOREA COMBAT GROUND FORCES EQUIPMENT REFERENCE CAPABILITY







## MANNEQUINS ATTIRED IN PERIOD UNIFORMS AND EJECTION SEAT DISPLAYS







## FIXED AND EJECTION SEAT EXAMPLES AND OTHER LIFE SUPPORT ITEMS





200+ EXAMPLES



## EJECTION SEAT REFERENCE







## COCKPIT REFERENCE EXAMPLES







### **COMPLETE COCKPITS**







### REFERENCE MATERIAL







### REFERENCE MATERIAL

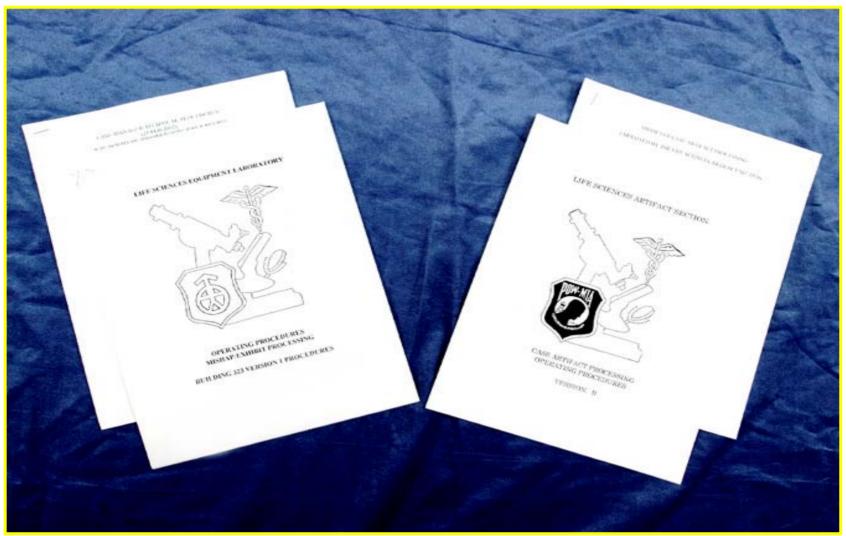






### POW/MP ACCOUNTABILITY MISSION PROCESS







## CASE PROCESSING PROCEDURES



- 1. INITIAL CASE RECEIPT
- 2. INITIAL CASE/ARTIFACT REVIEW
- 3. DETAILED ARTIFACT REVIEW
- 4. NON-DESTRUCTIVE REVIEW
- 5. MOSAIC / OVERLAY STUDY
- 6. ID OF PRIMARY ARTIFACTS



## PROCESSING PROCEDURES CONT'D

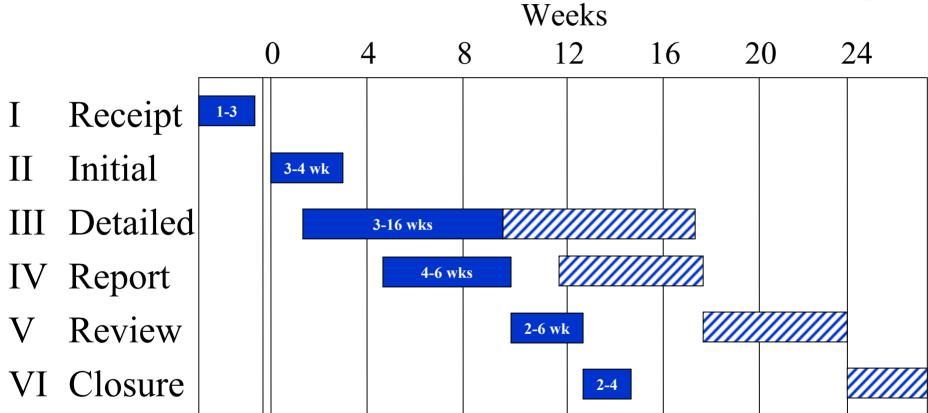


- 7. OVERSIGHT REVIEW
- 8. FINAL PHOTOGRAPHY SELECTION
- 9. DRAFT / FINAL REVIEW
- 10. APPROVAL / SIGN OFF
- 11. PLACE ON WEB SITE
- 12. CASE CLOSURE AND ISSUANCE



## **Investigation Phases Timeline**









# RECEIVING AND RECORDING CASE ARTIFACTS







# RECONCILIATION OF ARTIFACTS TO CUSTODY DOCUMENTS







# LOGGING CASE DETAILS INTO COMPUTER DATABASE







# INITIAL CASE FAMILIARIZATION AND PROCESSING







# REVIEW OF ARCHIVED TECHNICAL & FLIGHT MANUALS







# SORTING ARTIFACTS INTO ENSEMBLE GROUPINGS







# INITIAL PHOTOGRAPHY OF ARTIFACT RECEIPT CONDITION







# PLACING ARTIFACT ONTO AREA OF ORIGINATION







# MATCHING ARTIFACT ORIGINS TO REFERENCE ITEMS







# MATCHING ARTIFACTS TO ARCHIVED DRAWINGS







## COMPARATIVE ANALYSIS AND PHYSICAL MATCHING OF A RECOVERED ARTIFACT TO A MASTER REFERENCE USAF FLIGHT HELMET,







## THE RECOVERY AND IDENTIFICATION OF BOOT ARTIFACTS IS VERY SIGNIFICANT, AS THE PRESENCE OF PERSONNEL AT THE RECOVERY SITE ALONG WITH ANY SERVICE RELATED USAGE, CAN BE FIRMLY ESTABLISHED







## RECOVERED PARACHUTE HARNESS HARDWARE ARTIFACTS ARE MATCHED TO REPRESENTATIVE HARDWARE ITEMS TO CONFIRM IDENTITY, PRESENCE OF PERSONNEL, A POTENTIAL USAGE TIMEFRAME, SERVICE OR AIRCRAFT APPLICABILITY, ETC.







## IN-DEPTH MICROSCOPIC ANALYSIS OF THE ARTIFACTS







# COMPARATIVE MACROSCOPIC ANALYSIS OF ARTIFACTS







# MATERIALS LAB CHEMIST ANALYZING ARTIFACT SAMPLES







## ARTIFACTS PHOTOGRAPHY FOR REPORT







# ARCHIVED HISTORICAL DOCUMENTATION RESEARCH







# PHASE IV CONCLUSION PRELIMINARY EXECUTIVE SUMMARY ISSUED



EXECUTIVE SUMMARY
PRELIMINARY FINDINGS
(DD/MM/YYYY)

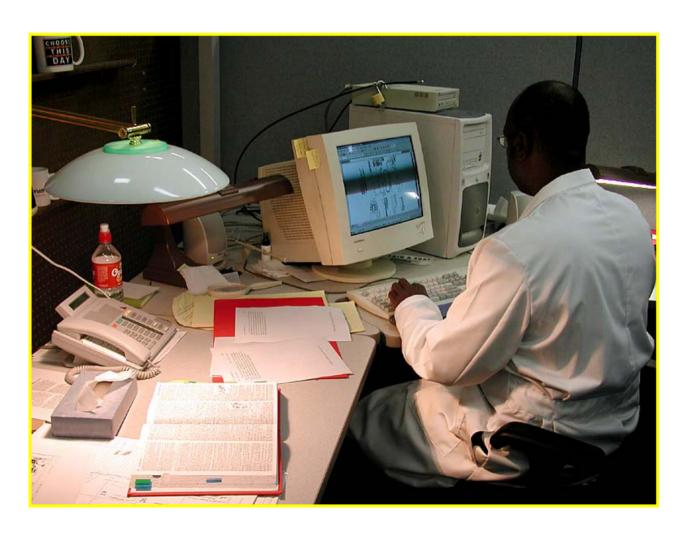
#### Summary:

- 1. Based upon information provided to the Life Sciences Equipment Laboratory, REFNO Case XXXX pertains to the loss of a USAF F-4D (65-0001) on xx September 19xx in Thailand, which left two crewmen unaccounted for.
- 2. On 16 October 1999, the case artifacts were received by the Life Sciences Equipment Laboratory and placed into temporary storage. On 1 November 20xx, extensive studies commenced on the case artifacts by analysts assigned to the Life Sciences Artifact Section.
- 3. Artifact evidence supports the involvement and loss of a USAF F-4 series aircraft, with two crewmembers being present at the recovery site, based upon the recovered/submitted life sciences equipment artifacts.
- 4. Based upon the identified presence of artifacts/equipment recovered from two different sites, located approximately 300 feet apart, strongly suggests that there was an unsuccessful attempt by the rear cockpit/seat crewmember to eject moments before crash impact.



### WRITING THE REPORT







### **REPORT ASSEMBLY**

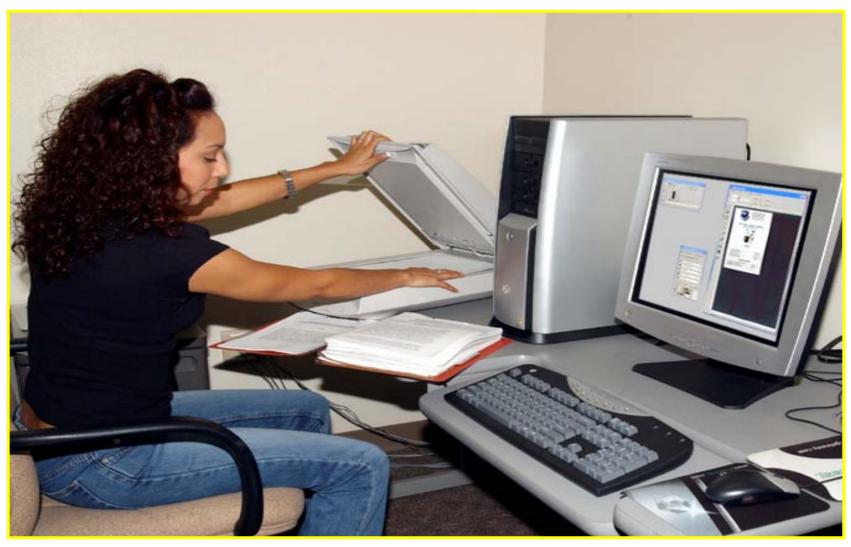






## SCANNING FOR PLACEMENT ON WEB SITE

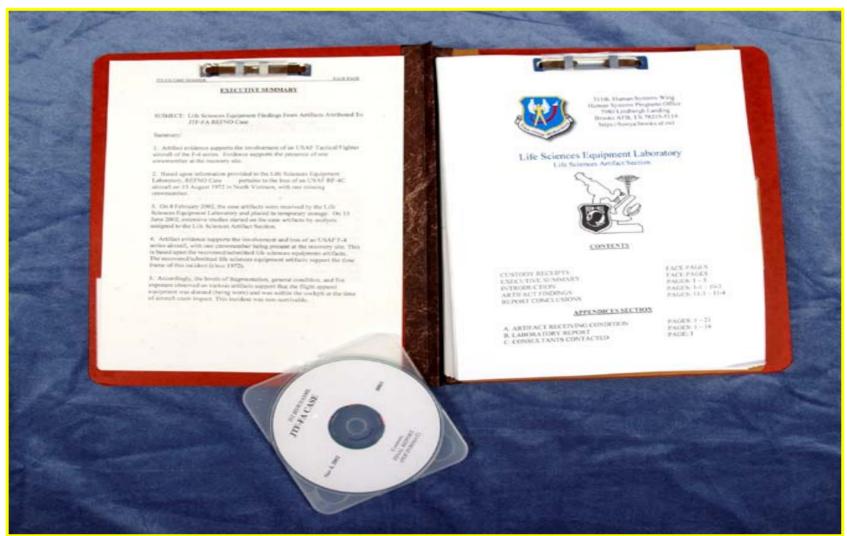






### FINAL REPORT AND CD







### POINTS OF CONTACT



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## Q&A